

THE GREAT BALLOON VOYAGE.

Views of Professor Henry, of the Smithsonian Institution.

To the Editor of the *Daily Graphic*:

Sir: Your letter of June 25 relative to the proposed balloon voyage across the Atlantic was received at the Institution during my absence from the city, and now on my return I embrace the first opportunity to give it a reply.

All the observations that have been made on the motion of the atmosphere, as well as the deductions from theoretical considerations, lead to the conclusion that the resultant motion of the air around the whole earth, within the temperate zones, especially about the middle of the month, is from west to east; and therefore, provided a balloon can be sustained at a sufficient height and for a sufficient length of time, it would, under ordinary circumstances, be wafted across the Atlantic.

But the point is, Can the balloon be sustained at a sufficient height and for a sufficient length of time to make the journey? This is a question which can be determined only by trial and error. Hydrogen will give the greatest amount of levity, but all gasses that which has the greatest power of penetration, or, in other words, the greatest density, will do best. Common street gas, with which balloons are generally filled, possesses less power of penetration but, it has also less specific gravity.

I think it is evident that the voyage across the ocean might be less than that across the land, since, on account of the unequal heating of the surface of the earth, more advanced weather would be found in the former than in the latter.

A somewhat earlier elevation on this account would be required to perform the journey over the land than over water, but the weight would be sufficiently great to warrant the voyage across the ocean before having made the preliminary experiment over land.

Mr. Wise makes a preliminary voyage across the continent, from the Pacific to the Atlantic, the distance being about the same as that between the two oceans. If this is successfully accomplished, confidence in the transatlantic project will be established.

I think it is important that the voyage across the ocean might be less than that across the land, since, on account of the unequal heating of the surface of the earth, more advanced weather would be found in the former than in the latter.

The market opened active today, and closed with the advance of one cent, reaching some 6,000 shares, while 1,000 shares were bought on red Western audited.

Common stocks, in very general review, had a slight decline, but Western stocks, for Westerners, the stock of which is large, is of all stocks that which has the greatest power of penetration, or, in other words, the greatest density.

Mr. D. E. Dyer, Vice President.

GEORGE H. REED,

Chairman of the Board.

JOHN C. FREDERICK,

Secretary.

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